

Tularemia

What is tularemia?

Tularemia is a bacterial disease that can cause a variety of symptoms, depending on how the organism enters the body. The organism that causes the disease is found in the environment, in wild animals, and in arthropods (e.g., ticks and deer flies in the U.S. and mosquitoes in other countries). Tularemia is not common in Virginia.

Who gets tularemia?

Any person can get tularemia, but it is seen most often in adults in early winter during rabbit hunting season and in children during the summer when there are a lot of ticks and flies. If several cases of tularemia are diagnosed in an area, the public health department begins an investigation to find out the source of exposure.

How is tularemia spread?

Tularemia cannot be spread from one person to another. However, you can get the disease in a variety of ways. The skin, eye, mouth and throat of hunters may be exposed to the bacteria while skinning or dressing wild animals, especially rabbits or hares. Handling or eating uncooked meat from infected animals, handling pelts and paws of animals, drinking contaminated water, or bites of certain arthropods may also transmit the disease. Another possible, but rare, route of exposure is by inhaling infected aerosols, such as dust from contaminated soil, hay or grain.

Could tularemia be used for bioterrorism?

Yes. Tularemia is one of the agents that could be used for bioterrorism because it is highly infectious, would be easy to distribute, and would cause many people to become seriously ill or die. Release of tularemia as a bioterrorism agent would probably be in the form of an aerosol.

What are the symptoms of tularemia?

Depending on the route of exposure, tularemia may cause skin ulcers, swollen and painful lymph glands, inflamed eyes, sore throat, oral ulcers or pneumonia-like illness. Early symptoms almost always include the abrupt onset of fever, chills, headache, muscle aches, joint pain, dry cough and progressive weakness. Pneumonia may be a complication of all types of infection and requires prompt diagnosis and specific treatment to prevent death.

How soon after exposure do symptoms appear?

The symptoms may appear anywhere from 1 to 14 days after exposure, but generally occur 3 to 5 days after exposure.

How is it diagnosed and treated?

Tularemia is diagnosed through special laboratory tests. Samples may be taken from different areas, depending on the type of tularemia. Early treatment with an antibiotic is recommended. The mortality rate for most naturally transmitted cases of tularemia is low. Tularemia is more dangerous when it is inhaled.

How can tularemia be prevented?

1. Avoid the bites of arthropods. Wear insect repellent while outside in areas where there are lots of bugs.
2. Avoid drinking, bathing, swimming, or working in untreated water where wild animals are known to be infected.
3. Use rubber gloves when skinning or handling animals, especially rabbits.
4. Cook the meat of wild rabbits and rodents thoroughly before eating it.
5. Discourage children from touching wild rabbits or other potentially infected animals.
6. Wear proper personal protective equipment and use appropriate containment if working with tularemia in a laboratory setting.

A vaccine for tularemia is currently under review by the Food and Drug Administration. If you suspect you have been exposed to tularemia, contact your doctor immediately.